Rejection based on Obvious-type Double Patenting

The Examiner has rejected claims 5-12 under the judicially created doctrine of obvious-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 5,133,732 and claims 1-12 of U.S. Patent No. 6,133,621 both to Wiktor. Upon allowance of the claims, Applicant will submit a terminal disclaimer. With the filing of a terminal disclaimer, Applicant submits that this rejection will be traversed and respectfully requests the removal of this rejection.

Objection to the Specification and Proposed Interfernce

The Examiner has objected to the specification as not providing a proper antecedent basis for the term "out of phase" found in claim 5. In addition, the Examiner has not declared an interference because the claims lack support for this term in the specification. Applicant submits that the figures of the specification provide adequate support for the term "out of phase." Therefore, Applicant respectfully traverses this objection.

The Examiner has indicated that Figure 8 does not show an out of phase relationship because when viewed "along the top and the bottom of the Figure," the undulations appear to be in phase. (Office Action, Paper No. 4, at 3.) Applicant understands the term "out of phase" to mean that adjacent waves are generally arranged such that the peak of one wave is aligned with the valley of the adjacent wave and so on. In U.S. Patent No. 6,066,167 to Lau (hereinafter "Lau"), the sinusoidal waves are in phase in Figures 4 and 5 and out of phase in Figure 11. This is easily discernable because the axis of each of the waves is

generally perpendicular to the longitudinal axis of the stent. Therefore, looking along a line perpendicular to the axis of each wave, such as the left and right sides of the figures, the phase of the waves is properly defined. In the Lau patent, a line perpendicular to the axis of the wave is a line parallel to the longitudinal axis of the stent, such as the left and right sides of Figures 4 and 5.

However, this is not the case in the present invention. As the wave shaped wire is wrapped around to form a helical shape, the axis of each curve follows the direction of the turns. Consequently, the axis of each turn of a helical shape is angled and not perpendicular to the longitudinal axis of the stent. The proper way to determine the alignment of the peaks and valleys is to view them on a line perpendicular to the angled axis of the wave. Consequently, looking along the top and bottom of Figure 1 does not give a proper perspective as to the direction that the peaks and valleys are facing.

Applicant has attached a blown up copy of Figure 1 of the specification. Lines A show the axis of each of the waves of each turn which follows the shape of the helical structure. Consequently, lines B, which are perpendicular to lines A, show the proper alignment of the peaks and valleys. As seen in Figure 1, the perpendicular lines B cut through a valley of one turn, a peak of the next turn, a valley of the next turn and so on. Consequently, Figure 1 shows a figure where the turns are out of phase.

Similarly, the embodiments of Figures 7 and 8 found in the specification of the present invention have a generally helical shape. The axis of each turn of these figures cannot be considered to be perpendicular to the longitudinal axis of the stent. Upon viewing the relationship between the adjacent turns by looking along a line perpendicular to the axis of each wave, the peaks and valleys are generally out of phase.

The Examiner highlighted the importance that the "undulating pattern" of the adjacent elements be out of phase in the Lau patent. (Office Action, Paper No. 4, at 3). However, nothing in the specification or file history of the Lau patent indicates what is meant by the word "pattern." There is nothing that would require the *entire* undulating pattern to be out of phase provided that the entire pattern is not in phase. Figure 8 of the present invention shows the peaks of one turn connected to the valleys of an adjacent turn. At least where a peak and a valley come together, the two adjacent turns must, by definition, be out of phase. Assuming *arguendo* that Figure 8 shows a pattern in which undulations are both in phase and out of phase,[1] inherent in a pattern that is both in phase and out of phase is a pattern that is out of phase. Consequently, a pattern which is entirely out of phase would be anticipated or in the alternative obvious over a pattern which is both in phase and out of phase.

Therefore, Applicant submits that the specification, in particular the figures, adequately supports the expression "out of phase" of claim 5 and respectfully requests the removal of this objection. Since proper support for this phrase is present, Applicant respectfully requests that an interference be declared between claims 5-12 of the present invention and claims 1-8 of the Lau patent.

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[1] Applicant has indicated above that a proper analysis will show that each wave is generally out of phase.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all currently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, an interference should be properly declared between the present application and U.S. Patent No. 6,056,776 to Lau *et al.* If the Examiner believes, for any reason, that personal communication will expedite this request, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

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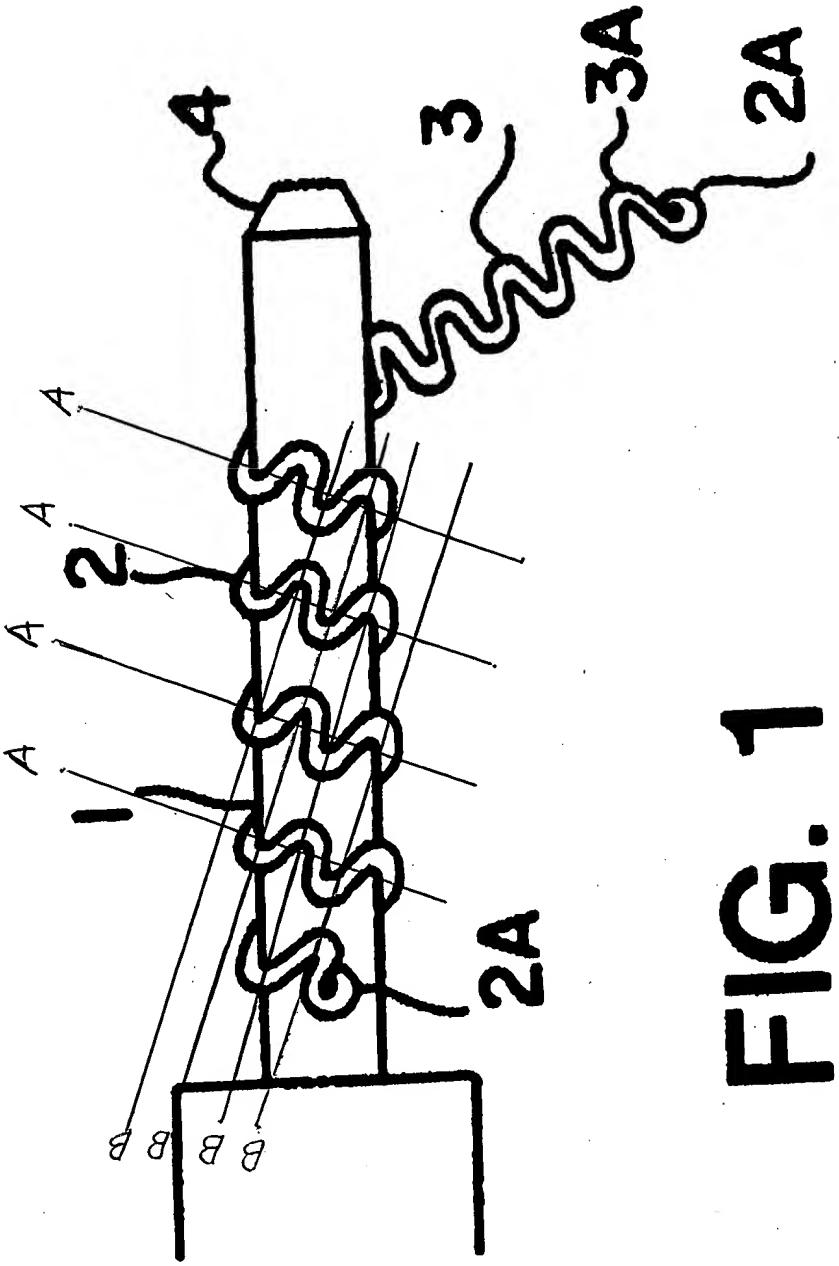

FIG. 1